

What is claimed is:

1. A method of transferring data from a local storage device to a remote storage device, comprising:

5 providing, to a portion of the local storage device, data to be transferred from the local storage device to the remote storage device using a first mode that accesses an indicator of data being transferred;

selecting a second mode for transferring data different from the first mode, wherein the second mode does not require the indicator;

10 subdividing the portion of the local storage device into chunks; for each of the chunks, transferring the data; and

after all of the data from the chunks has been transferred, using the second mode for transferring data that is provided to the local storage device after selecting the second mode.

2. A method, according to claim 1, further comprising:

15 prior to all of the data from the chunks being transferred, using a transition mode different from the first and second modes to transfer data that is provided to the local storage device after selecting the second mode, wherein the transition mode does not require the indicator.

3. A method, according to claim 1, wherein the indicator indicates a subsection of
20 the local storage device is being transferred.

4. A method, according to claim 3, wherein the local storage device is subdivided into cylinders and the cylinders are subdivided into tracks and wherein the indicator includes a first data element indicating which cylinders contain data to be transferred and a second data element indicating which tracks contain data to be transferred.

5 5. A method, according to claim 1, further comprising:
providing at least one counter that keeps track of data within the chunks that have been examined for possible transferring to the remote storage device.

6. A method, according to claim 5, further comprising:
determining that all of the chunks have been transferred when the at least one

10 counter indicates that all of the data has been examined.

7. A method of transferring data from a local storage device to a plurality of remote storage devices, comprising:

providing, to a portion of the local storage device, data to be transferred from the local storage device to the remote storage devices using a first mode that accesses an

5 indicator of data being transferred;

selecting a second mode for transferring data different from the first mode, wherein the second mode does not require the indicator;

subdividing the portion of the local storage device into chunks;

for each of the chunks, transferring the data; and

10 for each of the remote storage devices, after all of the data from the chunks has been transferred, using the second mode for transferring data that is provided to the local storage device after selecting the second mode.

8. A method, according to claim 7, further comprising:

15 prior to all of the data from the chunks being transferred to a particular one of the remote storage devices, using a transition mode different from the first and second modes to transfer, to the particular one of the remote storage devices, data that is provided to the local storage device after selecting the second mode, wherein the transition mode does not require the indicator.

9. A method, according to claim 7, further comprising:

20 providing a counter for at least one of the remote storage devices that keeps track of data within the chunks that have been examined for possible transferring to the at least one of the remote storage devices.

10. A method, according to claim 9, further comprising:

determining that all of the chunks have been transferred to the at least one of the remote storage devices when the counter indicates that all of the data has been examined.

11. Computer software that transfers data from a local storage device to a remote
5 storage device, comprising:

executable code that provides, to a portion of the local storage device, data to be transferred from the local storage device to the remote storage device using a first mode that accesses an indicator of data being transferred;

executable code that subdivides the portion of the local storage device into chunks
10 after a second mode for transferring data different from the first mode has been selected, wherein the second mode does not require the indicator;

executable code that transfers the data for each of the chunks; and

executable code that, after all of the data from the chunks has been transferred, uses the second mode for transferring data that is provided to the local storage device
15 after selecting the second mode.

12. Computer software, according to claim 11, further comprising:

executable code that, prior to all of the data from the chunks being transferred, uses a transition mode different from the first and second modes to transfer data that is provided to the local storage device after selecting the second mode, wherein the
20 transition mode does not require the indicator.

13. Computer software, according to claim 11, further comprising:
executable code that provides at least one counter that keeps track of data within
the chunks that have been examined for possible transferring to the remote storage
device.
- 5 14. Computer software, according to claim 13, further comprising:
executable code that determines that all of the chunks have been transferred when
the at least one counter indicates that all of the data has been examined.
15. Computer software that transfers data from a local storage device to a plurality of
remote storage devices, comprising:
10 executable code that provides, to a portion of the local storage device, data to be
transferred from the local storage device to the remote storage devices using a first mode
that accesses an indicator of data being transferred;
executable code that subdivides the portion of the local storage device into chunks
after a second mode for transferring data different from the first mode has been selected,
15 wherein the second mode does not require the indicator;
executable code that transfers the data for each of the chunks; and
executable code that, for each of the remote storage devices, after all of the data
from the chunks has been transferred, uses the second mode for transferring data that is
provided to the local storage device after selecting the second mode.

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16. Computer software, according to claim 15, further comprising:

executable code that, prior to all of the data from the chunks being transferred to a particular one of the remote storage devices, uses a transition mode different from the first and second modes to transfer, to the particular one of the remote storage devices,

5 data that is provided to the local storage device after selecting the second mode, wherein the transition mode does not require the indicator.

17. Computer software, according to claim 15, further comprising:

executable code that provides a counter for at least one of the remote storage devices that keeps track of data within the chunks that have been examined for possible

10 transferring to the at least one of the remote storage devices.

18. Computer software, according to claim 17, further comprising:

executable code that determines that all of the chunks have been transferred to the at least one of the remote storage devices when the counter indicates that all of the data has been examined.

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19. A system for transferring data to at least one remote storage device, comprising:
- a plurality of host adaptors that receive and send commands and data;
 - at least one memory coupled to the plurality of host adaptors;
 - a plurality of disk adaptors coupled to the at least one memory and the plurality of
- 5 host adaptors;
- a plurality of disk drive units coupled to the plurality of disk adaptors;
 - a plurality of data transmission adaptors coupled to the plurality of host adaptors,
- the at least one memory, the plurality of disk adaptors, and the plurality of disk drive
- units, wherein the data transmission adaptors send data to the at least one remote storage
- 10 device;
- a portion that receives data to be transferred from the local storage device to the
- remote storage devices using a first mode that accesses an indicator of data being
- transferred;
- executable code that subdivides the portion into chunks after a second mode for
- 15 transferring data different from the first mode has been selected, wherein the second
- mode does not require the indicator;
- executable code that transfers the data for each of the chunks; and
 - executable code that, for each of the at least one remote storage device, uses the
- second mode for transferring data that is provided after selecting the second mode,
- 20 wherein the second modes is used after all of the data from the chunks has been
- transferred.

20. A system, according to claim 19, further comprising:

executable code that, prior to all of the data from the chunks being transferred,
uses a transition mode different from the first and second modes to transfer data that is
provided to the system after selecting the second mode, wherein the transition mode does

5 not require the indicator.